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TAIL LOSS AND ANOMALY IN *ZOOTOCA VIVIPARA* AND *LACERTA AGILIS* IN HUNGARY

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An article concerned with tail's morphological anomaly that was founded between L. agilis from different regions of Hungary. No anomalies in Z. vivipara sampled were found.

Статья посвящена морфологической аномалии хвоста, обнаруженной среди выборок L. agilis из разных регионов Венгрии. Ни одной аномалии среди выборок Z. vivipara не отмечено.

The study and conservation of ecological, morphological and genetic diversity of key organisms both in biodiversity hotspots and human influenced landscape is an important task at the beginning of the 21st century. The Eurasian common lizard, *Zootoca vivipara* (Lichtenstein, 1823), is the lizard with the largest distribution area on Earth [Schmidtler, Böhme, 2011] with several subspecies/clades, some with extremely large, others with more limited distribution areas. Its investigation dates back to the 1920s in Hungary [Fejérváry, 1923], where several *Z. vivipara* clades exist in different parts of the country. The study of their karyology and phylogenetic relationships started in the 2000s [Odierna et al., 2004; Surget-Groba et al., 2006] together with its conservation implications [Puky et al., 2004], which is supplemented by further and more detailed genetic, morphological and ecological investigations in recent years. As part of the study, the health status of the investigated individuals is checked. Besides *Zootoca vivipara*, *Lacerta agilis* inhabiting the same sites were also investigated morphologically. This article summarises results related with tail regeneration and anomalies.

In 2011–2013 *Zootoca vivipara* and *Lacerta agilis* was sampled in different regions of Hungary. Samples were collected from eight locations. Over a hundred individuals were examined. Individuals with additive anomalies were X-rayed.

Reptile anomalies are known for long especially that of the tail as many lizards are able to voluntarily shed their tails as a strategy to escape predation including both species studied and this process can lead to different anomalies. In the present study tail loss was recorded with a frequency over 26 % with *Z. vivipara* but no anomalies were found. A very similar frequency was found with *L. agilis*. One *Lacerta agilis* individual also showed a tail anomaly (figure). It was an adult female with a 6,83 cm body and 5,85 cm tail length and a 7,15 g weight. In the middle section of the tail (2,64 cm from its base) a 0,54 cm outgrowth was present. No bony structure was found in the outgrowth. On the basis

of digital X-ray investigations it may be related to a previous shed of the tail and its improper regeneration.

Lacerta agilis with an improper regeneration of the tail from Ökördi-láp. Kiskőrös, Hungary (Photo: Miklós Puky)

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ВСТРЕЧАЕМОСТЬ МОРФОЛОГИЧЕСКИХ АНОМАЛИЙ В ПОПУЛЯЦИОННЫХ СИСТЕМАХ ЗЕЛЕНЫХ ЛЯГУШЕК (*PELOPHYLAX* FITZINGER, 1843) С СЕВЕРО-ВОСТОКА АРЕАЛОВ

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THE OCCURRENCE OF MORPHOLOGICAL ANOMALIES IN GREEN FROGS POPULATION SYSTEMS (*PELOPHYLAX* FITZINGER, 1843) FROM THE NORTH-EASTERN PART OF THE AREAS

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In 2007–2013, a total of 754 specimens were investigated from 15 localities situated in Mari El Republic and southern part